REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the preceding amendments and the following remarks, is respectfully requested.

Claims 1-21 are pending in this application. Claims 1-21 are amended. Claims 1 and 20 are independent claims. No new matter has been added.

In the First OA, the Examiner rejected claims 1-20 under 35 U.S.C. § 112, ¶ 1 (written description); rejected claims 1-19 under 35 U.S.C. § 112, ¶ 2; rejected claim 21 under 35 U.S.C. § 101; rejected claims 1-10, 20, and 21 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,510,944 to Porges ("Porges"); and rejected claims 11-19 under 35 U.S.C. § 103(a) as being unpatentable over Porges in view of U.S. Patent Publication No. 2006/0074329 A1 to Ferguson, II et al. ("Ferguson").

Rejection Under 35 U.S.C. § 112, ¶ 1

Applicants amend claims 1 and 20 to recite, inter alia, "wherein the primary fetal heart rate component is identified through an approximation of data of the fetal heart rate development over time, including . . . performing individual polynomial curve fit approximations of the fetal heart rate development over time data for each period of time, each of the individual polynomial curve fit approximations resulting in a polynomial curve". Applicants also amend the claims to remove all "means for" language.

Applicants submit that these amendments obviate the rejection under 35 U.S.C. § 112, ¶ 1 (written description), and request that the associated rejection be withdrawn.

Rejection Under 35 U.S.C. § 112, ¶ 1

As discussed above, Applicants amend the claims to remove all "means for" language.

Applicants submit that these amendments obviate the rejection under 35 U.S.C. § 112, ¶ 2, and request that the associated rejection be withdrawn.

Rejection Under 35 U.S.C. § 101

Applicants amend claim 21 substantially as suggested by the Examiner.

Applicants submit that this amendment obviates the rejection under 35 U.S.C. § 101, and request that the associated rejection be withdrawn.

Rejection Under 35 U.S.C. § 102(b)

Applicants submit that Porges does not disclose all of the recitations of independent claim 1—as amended—including at least "dividing the determined fetal heart rate development over time data into periods of time of predetermined size", "performing individual polynomial curve fit approximations of the fetal heart rate development over time data for each period of time, each of the individual polynomial curve fit approximations resulting in a polynomial curve", and "assembling the polynomial curves to form the primary fetal heart rate component".

For example, for a given data set, Porges uses a moving polynomial filter that fits a polynomial "to the first 2m+1 data points to determine the 'trend' value at data point m+1". Porges, c. 10/ll. 1-3. To determine the 'trend' value at data point m+2, "the same order polynomial is fit to another 2m+1 data points moved one time point forward". Id., c. 10/ll. 4-6. This process is "continued through the data set until the polynomial is fit to the last 2m+1 data points". Id., c. 10/ll. 6-8. Thus, Porges's approximation is a collection of these "trend" values and "the m data points at the beginning and end of the data set are forfeited". Id., c. 10/ll. 8-13. Thus, Applicants submit that Porges does not disclose "performing individual polynomial curve fit approximations of the fetal heart rate development over time data for each period of time, each of the individual polynomial curve fit approximations resulting in a polynomial curve" or "assembling the polynomial curves to form the primary fetal heart rate component", as recited in amended claim 1 (emphases added).

Therefore, Applicants submit that Porges does not disclose, expressly or inherently, each and every element of amended claim 1.

Similarly, Applicants submit that Porges does not disclose all of the recitations of independent claim 20—as amended—including at least "dividing the determined fetal heart rate development over time data into periods of time of predetermined size", "performing individual polynomial curve fit approximations of the fetal heart rate development over time data for each period of time, each of the individual polynomial curve fit approximations

resulting in a polynomial curve", and "assembling the polynomial curves to form the primary fetal heart rate component".

As discussed above, for example, for a given data set, Porges uses a moving polynomial filter that fits a polynomial "to the first $2m+1$ data points to determine the 'trend' value at data point $m+1$". Id., c. 10/ll. 1-3. To determine the 'trend' value at data point $m+2$, "the same order polynomial is fit to another $2m+1$ data points moved one time point forward". Id., c. 10/ll. 4-6. This process is "continued through the data set until the polynomial is fit to the last $2m+1$ data points". Id., c. 10/ll. 6-8. Thus, Porges's approximation is a collection of these "trend" values and "the m data points at the beginning and end of the data set are forfeited". Id., c. 10/ll. 8-13. Thus, Applicants submit that Porges does not disclose "performing individual polynomial curve fit approximations of the fetal heart rate development over time data for each period of time, each of the individual polynomial curve fit approximations resulting in a polynomial curve" or "assembling the polynomial curves to form the primary fetal heart rate component", as recited in amended claim 20 (emphases added).

Therefore, Applicants submit that Porges does not disclose, expressly or inherently, each and every element of amended claim 20.

For at least these reasons, Applicants submit that independent claims 1 and 20, as amended, are patentable under 35 U.S.C. § 102(b) over Porges. Applicants further submit that dependent claims 2-10 and 21 are patentable

under 35 U.S.C. § 102(b) over Porges, at least for the same reasons that claims 1 and 20 are patentable, from which claims 2-10 and 21 directly or indirectly depend.

Rejection Under 35 U.S.C. § 103(a)—Porges/Ferguson

As discussed above, Applicants submit that Porges does not disclose all of the recitations of independent claim 1—as amended—including at least "dividing the determined fetal heart rate development over time data into periods of time of predetermined size", "performing individual polynomial curve fit approximations of the fetal heart rate development over time data for each period of time, each of the individual polynomial curve fit approximations resulting in a polynomial curve", and "assembling the polynomial curves to form the primary fetal heart rate component". Applicants further submit that Porges does not, for example, teach or suggest all of the recitations of amended claim 1.

Moreover, Applicants submit that Ferguson does not overcome these deficiencies of Porges.

For at least these reasons, Applicants submit that independent claim 1, as amended, is patentable under 35 U.S.C. § 103(a) over any proper combination of Porges and Ferguson. Applicants further submit that dependent claims 11-19 are patentable under 35 U.S.C. § 103(a) over any proper combination of Porges and Ferguson, at least for the same reason that claim 1 is patentable, from which claims 11-19 indirectly depend.

Request for Reconsideration and Allowance

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and allowance of each of claims 1-21 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

If necessary, the Director of the U.S. Patent and Trademark Office is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; in particular, extension of time fees.

Respectfully submitted,

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